director, attributable stockholder or key management personnel of the applicant. Applicants should be aware that the Commission recently amended its rules to (1) exempt from attribution certain insulated limited partnership interests held by institutional investors; and (2) increase from five to ten percent the level at which institutional investors' PCS license ownership interests will be attributed. See Memorandum Opinion and Order, GN Docket No. 90-314, FCC 95-92 (Released March 3, 1995), 60 Fed. Reg. 13,915 (March 15, 1995). Additionally, Section 24.813(a)(2) was modified to provide that only institutional investors holding interests of ten percent or more in the applicant have to disclose their holdings in the applicant.

Also, in a separate Order released March 22, 1995, the Wireless Telecommunications Bureau has waived the existing Section 24.813(a) disclosure requirements with respect to outside interests held by applicants or investors in businesses that are not land mobile services regulated as Commercial Mobile Radio Service (CMRS) and Private Mobile Radio Service (PMRS). See Order, DA No. 95-507, (Released March 22, 1995). See also 47 C.F.R. § 20.3 (defining CMRS and PMRS); Second Report and Order, GN Docket No. 93-252, 9 FCC Rcd 1411 (1994), erratum, Mimeo No. 92486 (Released March 30, 1994).

Instructions

Attach the information, certified as truthful, that is required pursuant to Section 24.813(a)(1)-(4) of the Commission's Rules, 47 C.F.R. § 24.813(a)(1)-(4), concerning the identity of the applicant (i.e., real party or parties-in-interest) and ownership interests held in the applicant and in investors in the applicant. A suggested format for providing the ownership information required by Section 24.813(a)(1)-(4) is set forth in Attachments B and C to this Public Notice. If applicants choose to follow the format in Attachments B and C, but want to supplement their responses on additional pages (i.e, because there is not enough space), they may do so. Please clearly label additional pages to indicate the Exhibit and Item number (See below) to which those pages relate. A further explanation of the information requested follows (See also Attachments B and C to this Public Notice):

Ownership Exhibit A

First, attach and label as Ownership Exhibit A, a document or series of documents that identifies all persons or entities that *directly* hold a five percent or more interest in the applicant (except that institutional investors only need be listed when their *direct* interest in the applicant is 10 percent or more). For each five (or ten) percent interest holder listed, applicants should provide the following information (See Attachment B):

Item (1) Name and address: Identify the name and address of the interest holder in the applicant. If the interest holder is an individual, provide the name and address of that person, and indicate whether the interest holder is a partner, officer, director, or key manager (e.g, CEO, General Manager) of the applicant. If the interest holder is a corporation, provide the name and address of the corporate office and the name and title of an officer, director or

authorized contact. If the interest holder is a partnership, provide the name and address of all partners, or the name, title and address of an authorized contact for the partnership.

- Item (2) <u>Relationship to Other Interest Holder</u>: Indicate whether the interest holder is related to any other five percent interest holder by blood or marriage, and provide the name of the related interest holder.
- Item (3) <u>Citizenship</u>: Indicate whether the interest holder is a U.S citizen or U.S. corporation. If the interest holder is a partnership, indicate whether each partner is a U.S. citizen. Applicants should list all foreign partners regardless of whether they are general or limited partners, except that applicants need not list a limited partner: (1) whose level of ownership in the licensee does not exceed the level allowed by Section 310(b); and (2) who is "insulated" from the management and control of the partnership. See Wilner and Scheiner, 103 FCC 2d 511 (1985), recon. granted in part, 1 FCC Rcd 12 (1986); First Report and Order in GN Docket No. 93-252, 9 FCC Rcd 1056, 59 Fed. Reg. 1,285 (Jan. 10, 1994) at ¶ 9 and n. 13. See also Memorandum Opinion and Order, GN Docket No. 90-314, FCC 95-92 (Released March 3, 1995), 60 Fed. Reg. 13,915 (March 15, 1995) at ¶ 11. Also, if an interest holder is an alien, check your response to Items 29-33 on the main FCC Form 600. The level of alien ownership in an applicant can trigger the need to attach a separate exhibit explaining the nature and extent of alien or foreign ownership. See 47 U.S.C. § 310(b)(3)-(4). If such an exhibit is needed, attach as part of the main FCC Form 600 exhibits, and as indicated in the instructions to the FCC Form 600.
- Item (4) <u>Principal Business</u>: Describe the interest holder's principal business. In particular, indicate whether its principal business gives rise to attributable interests in cellular, PCS or Specialized Mobile Radio licenses.
- ltem (5) Outside Interests: List any outside business interests of five percent or more held by the interest holder if such interests are held in land mobile service providers (i.e., CMRS or PMRS providers). For any CMRS or PMRS businesses listed, describe their business relationship, if any, to the applicant. Remember that institutional investors holding direct interests of 10 percent or more in the applicant must report outside interests of five percent or more under this provision.
- Item (6) <u>Type of Interest Held</u>: Indicate whether the interest held is in the form of stocks, bonds, warrants, partnership, etc. If interests are held in stock, specify the class of stock and any voting rights associated with the stock. If the interests are held in a partnership, indicate whether the interests or limited or general partnership interests.
- Item (7) Amount Held: Specify the amount held (e.g., number of shares of stock) for each type of interest specified.
- Item (8) <u>Percentage Held</u>: Specify the percentage interest held in the applicant based on any combined holdings.

Item (9) <u>Held on Behalf of</u>: If an interest is held in trust, or on behalf of another person or entity, identify the party for whom the interest is held.

Ownership Exhibit B

Second, attach and label as **Ownership Exhibit B**, a document or series of documents that identifies all persons or entities that *indirectly* hold a five percent or more interest in the applicant (the threshold is 10 percent for institutional investors). See Attachment C. For each person or entity listed, provide the same information listed in Items (1)-(9) above as is requested for direct interests, including a list of business interests in other CMRS or PMRS providers as specified in Item (5). In calculating the percentage of indirect ownership in Item (8), be sure to use a multiplier. See Further Order on Reconsideration, GN Docket No. 90-314, 9 FCC Rcd 4441 (1994), as modified in Memorandum Opinion and Order, GN Docket No. 90-314, FCC 95-92 (Released March 3, 1995), 60 Fed. Reg. 13,915 (March 15, 1995). See also 47 C.F.R. § 24.204 (d)(2)(viii). In addition, create a new Item (10) category -- Intervening Interests -- as further explained below.

Item (10) <u>Intervening Interests</u>: Indirect interests also can be held through intervening corporations and other entities. For each *indirect* interest holder, specify the intervening corporations or other entities from which the *indirect* five percent interest (or 10 percent if an institutional investor) in the applicant is derived.

Ownership Exhibit C

Third, attach and label as **Ownership Exhibit** C a list of partners, officers, directors and key management personnel of the applicant if not otherwise listed on Ownership Exhibit A. In addition, list *outside* business interests of five percent or more held by each officer, director, or key management person if such business interests are held in land mobile service providers (*i.e.*, CMRS or PMRS providers). If any CMRS or PMRS businesses are listed, describe their business relationship, if any, to the applicant.

Ownership Exhibit D

Fourth, if the applicant is a partnership, attach and label as Ownership Exhibit D a signed and dated copy of the partnership agreement. See 47 C.F.R. § 24.813(a)(4). Proprietary information may be redacted, or confidentiality can be sought pursuant to Section 0.453 of the Commission's Rules, 47 C.F.R. § 0.459. Ancillary agreements to the partnership agreement need not be disclosed unless such disclosure is required elsewhere in our rules. Partnership agreements should be current and complete as of the application filing date.

II. Joint Venture Agreements/Bidding Consortia.

Agreements Exhibit A

Attach and label as Agreements Exhibit A, a detailed explanation of the terms and conditions and parties involved in any bidding consortia, joint venture, partnerships or other agreement or arrangement into which the applicant has entered relating to the competitive bidding process prior to the time the bidding was completed. Such agreements must have been entered into prior to the filing of the short form applications pursuant to Section 1.2105, 47 C.F.R. § 1.2105. See also 47 C.F.R. § 1.2107(d). To comply with this requirement, applicants can either submit the agreements themselves, or can submit a detailed description of those agreements with proprietary information excluded. If applicants choose to submit the agreements, they can redact proprietary information or can seek confidentiality for those documents pursuant to Section 0.453 of the Commission's Rules.

III. Certifications and Divestiture Plans.

Certifications Exhibit A

Attach and label as Certifications Exhibit A, a statement that certifies that the applicant is in compliance with the PCS-cellular cross-ownership limit (47 C.F.R. § 24.204) and the PCS-to-PCS spectrum cap (47 C.F.R. § 24.229(c)). Each applicant must certify on the main FCC Form 600 whether it is in compliance with the CMRS spectrum aggregation limit (47 C.F.R. § 20.6), so no additional statement is required to certify compliance with this rule. In making the certifications, applicants are reminded to consider not only ownership interests, but also any management or joint marketing agreements that are relevant to determining attribution in the applicant pursuant to Section 24.404(d)(2)(ix)-(x). Only such agreements having the potential to significantly influence the nature or types of services offered by the applicant, the terms upon which services are offered, or the prices charged for services are attributable. See 47 C.F.R. § 24.404(d)(2)(ix)-(x).

Divestiture Exhibit A

If an applicant is unable to certify to compliance with the CMRS spectrum aggregation limit (47 C.F.R. § 20.6), or the PCS-cellular cross-ownership limit (47 C.F.R. § 24.204), or the PCS-to-PCS spectrum cap (47 C.F.R. § 24.229(c)), attach and label as Divestiture Exhibit A, a signed statement that describes the applicant's efforts to date and future plans to come into compliance with the rules through divestiture of prohibited properties. See 47 C.F.R. §§ 20.6(e)-(f), 24.204(f)(2) and 24.229(c). The statement must indicate that sufficient properties will be divested within 90 days of license grant to meet our requirements. See 47 C.F.R. § 24.833. If divestiture is required, the Commission will condition grant of the application on the licensee coming into compliance with our requirements.

IV. Copy of FCC Form 175 as Amended.

Each applicant should attach and label as FCC Form 175 Exhibit A, a copy of its FCC Form 175, including all amendments to that application. Pursuant to Section 24.813(c)

of the Commission's Rules, 47 C.F.R. § 24.813(a), applicants may incorporate by reference any materials contained in the FCC Form 175 as long as that information is current, and the applicant meets other requirements. See 47 C.F.R. § 24.813(a). Therefore, we ask applicants to provide us with a copy of their FCC Form 175 for easy reference.

For further information or assistance on this Public Notice, contact Rita Cookmeyer, Iraida Longin, or Kimberly King, Commercial Wireless Division, Wireless Telecommunications Bureau - (202) 418-0620.

-FCC-

			ATTACHME	NT A		
			Winning Bio	iders		
Mkt. No.	Freq. Blk.	License No.	Market	Winning Bidder	Winning Bld	
M001	В	PBM001B	New York	WirelessCo, L.P.	\$442,712,000	
M002	В	PBM002B	Los Angeles-San Diego	Pacific Telesis Mobile Services	\$493,500,000	
M003	Ā	PBM003A	Chicago	AT&T Wireless PCS Inc.	\$372,750,000.	
M003	В		Chicago	PCS PRIMECO, L.P.	\$385,050,583	
M004	A	PBM004A	San Francisco-Oakland-San Jose	WirelessCo, L.P.	\$206,500,000	
M004	В	PBM004B	San Francisco-Oakland-San Jose	Pacific Telesis Mobile Services	\$202,150,000	
M005	Ā	PBM005A	Detroit	AT&T Wireless PCS Inc.	\$81,177,000.	
M005	В	PBM005B	Detroit	WirelessCo, L.P.	\$86,107,000	
M006	Α	PBM006A	Charlotte-Greensboro-Greenville-Raleigh	AT&T Wireless PCS Inc.	\$66,616,000	
M006	В	PBM006B	Charlotte-Greensboro-Greenville-Raleigh	BellSouth Personal Communications, Inc.	\$70,907,001	
M007	Α	PBM007A	Dallas-Fort Worth	PCS PRIMECO, L.P.	\$87,500,578.	
M007	В	PBM007B	Dallas-Fort Worth	WirelessCo, L.P.	\$88,444,000.	
M008	Α		Boston-Providence	AT&T Wireless PCS Inc.	\$121,660,000.	
M008	В	PBM008B	Boston-Providence	WirelessCo, L.P.	\$127,065,892.	
M009	A		Philadelphia	AT&T Wireless PCS Inc.	\$80,951,000	
M009	В	L .	Philadelphia	PhillieCo, L.P.	\$84,995,012.	
M010	В	PBM010B	Washington-Baltimore	AT&T Wireless PCS Inc.	\$211,771,000	
M011	Α		Atlanta	AT&T Wireless PCS Inc.	\$198,411,000	
M011	В		Atlanta	GTE Macro Communications Corporation	\$184,660,483	
M012	Α	<u> </u>	Minneapolis-St. Paul	WirelessCo, L.P.	\$39,674,673	
M012	В		Minneapolis-St. Paul	American Portable Telecommunications, Inc.	\$36,600,012.	
M013	Α	PBM013A	Tampa-St. Petersburg-Orlando	American Portable Telecommunications, Inc.	\$89,786,837.	
M013	В	PBM013B	Tampa-St. Petersburg-Orlando	PCS PRIMECO, L.P.	\$99,327,723.	
M014	Α		Houston	American Portable Telecommunications, Inc.	\$83,888,837.	
M014	В	1	Houston	PCS PRIMECO, L.P.	\$82,680,425.	
M015	Α		Miami-Fort Lauderdale	WirelessCo, L.P.	\$131,723,000.	
M015	В	PBM015B	Miami-Fort Lauderdale	PCS PRIMECO, L.P.	\$126,020,126.	
M016	Α	PBM016A	Cleveland	Ameritech Wireless Communications, Inc.	\$87,000,000.	
M016	В	PBM016B	Cleveland	AT&T Wireless PCS Inc.	\$85,881,000.	
M017	Α	PBM017A	New Orleans-Baton Rouge	WirelessCo, L.P.	\$93,949,001	

M017	В	PBM017B	New Orleans-Baton Rouge	PCS PRIMECO, L.P.	\$89,475,484
M018	A	PBM018A	Cincinnati-Dayton	AT&T Wireless PCS Inc.	\$41,932,000
M018	В	PBM018B	Cincinnati-Dayton	GTE Macro Communications Corporation	\$42,733,483
ĬŇ!	٨	PBM019A	St. Louis	AT&T Wireless PCS Inc.	\$118,836,000.
M019	В	PBM019B	St. Louis	WirelessCo, L.P.	\$114,325,789.
M020	A	PBM020A	Milwaukee	WirelessCo, L.P.	\$85,043,289.
M020	В	PBM020B	Milwaukee	\$86,000,001	
M021	A	PBM021A	Pittsburgh	WirelessCo, L.P.	\$28,719,362
M021	В	PBM021B	Pittsburgh	American Portable Telecommunications, Inc.	\$31,665,837
M022	A	PBM022A	Denver	WirelessCo, L.P.	\$64,436,000
M022	В	PBM022B	Denver	GTE Macro Communications Corporation	\$64,502,483
M023	Ā	PBM023A	Richmond-Norfolk	AT&T Wireless PCS Inc.	\$33,652,000
M023	В	PBM023B	Richmond-Norfolk	PCS PRIMECO, L.P.	\$33,045,045
M024	Ā	PBM024A	Seattle (Excluding Alaska)	GTE Macro Communications Corporation	\$106,355,002
M024	В	PBM024B	Seattle (Excluding Alaska)	WirelessCo, L.P.	\$105,163,484
M025	A	PBM025A	Puerto Rico-U.S. Virgin Islands	AT&T Wireless PCS Inc.	\$56,899,000
M025	В	PBM025B	Puerto Rico-U.S. Virgin Islands	Centennial Cellular Corp.	\$54,672,000
M026	Α	PBM026A	Louisville-Lexington-Evansville	AT&T Wireless PCS Inc.	\$49,262,000
M026	В	PBM026B	Louisville-Lexington-Evansville	WirelessCo, L.P.	\$46,577,000
M027	A	PBM027A	Phoenix	AT&T Wireless PCS Inc.	\$78,347,000
M027	В	PBM027B	Phoenix	WirelessCo, L.P.	\$75,608,434
M028	Α	PBM028A	Memphis-Jackson	Powertel PCS Partners, L.P.	\$43,169,000
M028	В	PBM028B	Memphis-Jackson	Southwestern Bell Mobile Systems, Inc.	\$43,168,314.
M029	A	PBM029A	Birmingham	WirelessCo, L.P.	\$35,597,000.
M029	В	PBM029B	Birmingham	Powertel PCS Partners, L.P.	\$35,278,000.
M030	Α	PBM030A	Portland	Western PCS Corporation	\$34,155,030
M030	В	PBM030B	Portland	WirelessCo, L.P.	\$34,139,785.
M031	Α	PBM031A	Indianapolis	WirelessCo, L.P.	\$70,433,000
M031	В	1	Indianapolis	Ameritech Wireless Communications, Inc.	\$71,100,000.
M032	Α	1	Des Moines-Quad Cities	Western PCS Corporation	\$22,100,031
M032	В	PBM032B	Des Moines-Quad Cities	WirelessCo, L.P.	\$21,042,973.
M033	Α	PBM033A	San Antonio	WirelessCo, L.P.	\$54,394,123.
M033	В	PBM033B	San Antonio	PCS PRIMECO, L.P.	\$51,950,059
M034	Α	PBM034A	Kansas City	WirelessCo, L.P.	\$23,619,168
M034	В	PBM034B	Kansas City	American Portable Telecommunications, Inc.	\$23,611,837

M035 A M035 B M036 A M036 B M037 A M037 B M038 A M038 B M039 A M039 B M040 A M040 B	PBM035B PBM036A PBM036B PBM037A PBM037B PBM038A PBM038B PBM039A PBM039B	Buffalo-Rochester Buffalo-Rochester Salt Lake City Salt Lake City Jacksonville Jacksonville Columbus Columbus El Paso-Alberquerque	WirelessCo, L.P. AT&T Wireless PCS Inc. Western PCS Corporation WirelessCo, L.P. Powertel PCS Partners, L.P. PCS PRIMECO, L.P. AT&T Wireless PCS Inc. American Portable Telecommunications, Inc.	\$18,893,000 \$19,864,000 \$45,847,030 \$46,179,852 \$46,000,000 \$44,500,544 \$22,290,000
M036 A M036 B M037 A M037 B M038 A M038 B M039 A M039 B M040 A	PBM036A PBM036B PBM037A PBM037B PBM038A PBM038B PBM039A PBM039B	Salt Lake City Salt Lake City Jacksonville Jacksonville Columbus Columbus El Paso-Alberquerque	Western PCS Corporation WirelessCo, L.P. Powertel PCS Partners, L.P. PCS PRIMECO, L.P. AT&T Wireless PCS Inc.	\$45,847,030 \$46,179,852 \$46,000,000 \$44,500,544 \$22,290,000
M036 B M037 A M037 B M038 A M038 B M039 A M039 B M040 A	PBM036B PBM037A PBM037B PBM038A PBM038B PBM039A PBM039B	Salt Lake City Jacksonville Jacksonville Columbus Columbus El Paso-Alberquerque	WirelessCo, L.P. Powertel PCS Partners, L.P. PCS PRIMECO, L.P. AT&T Wireless PCS Inc.	\$46,179,852 \$46,000,000 \$44,500,544 \$22,290,000
M037 A M037 B M038 A M038 B M039 A M039 B M040 A	PBM037A PBM037B PBM038A PBM038B PBM039A PBM039B	Jacksonville Jacksonville Columbus Columbus El Paso-Alberquerque	Powertel PCS Partners, L.P. PCS PRIMECO, L.P. AT&T Wireless PCS Inc.	\$46,000,000 \$44,500,544 \$22,290,000
M037 B M038 A M038 B M039 A M039 B M040 A	PBM037B PBM038A PBM038B PBM039A PBM039B	Jacksonville Columbus Columbus El Paso-Alberquerque	PCS PRIMECO, L.P. AT&T Wireless PCS Inc.	\$44,500,544 \$22,290,000
M038 A M038 B M039 A M039 B M040 A	PBM038A PBM038B PBM039A PBM039B	Columbus Columbus El Paso-Alberquerque	AT&T Wireless PCS Inc.	\$22,290,000.
M038 B M039 A M039 B M040 A	PBM038B PBM039A PBM039B	Columbus El Paso-Alberquerque		
M039 A M039 B M040 A	PBM039A PBM039B	El Paso-Alberquerque	American Portable Telecommunications, Inc.	200 470 655
M039 B	РВМ039В	<u> </u>		\$22,176,837.
M040 A			Western PCS Corporation	\$8,634,030
	DDMOAGA	El Paso-Alberquerque	AT&T Wireless PCS Inc.	\$8,634,000.
M040 B	PDMU4UA	Little Rock	Southwestern Bell Mobile Systems, Inc.	\$12,732,501.
	PBM040B	Little Rock	WirelessCo, L.P.	\$12,321,000
M041 A	PBM041A	<u> </u>	Western PCS Corporation	\$11,111,111.
M041 B	PBM041B	Oklahoma City	WirelessCo, L.P.	\$13,142,346.
M042 A	PBM042A	Spokane-Billings	Poka Lambro Telephone Cooperative, Inc.	\$5,688,000
M042 B	PBM042B	Spokane-Billings	WirelessCo, L.P.	\$6,191,000.
M043 A	PBM043A	Nashville	WirelessCo, L.P.	\$16,374,000.
M043 E	PBM043B	Nashville	AT&T Wireless PCS Inc.	\$15,810,000.
M044 A		1	AT&T Wireless PCS Inc.	\$10,635,000.
M044 E	PBM044B	Knoxville	BellSouth Personal Communications, Inc.	\$11,149,000.
M045 A	PBM045A	Omaha	AT&T Wireless PCS Inc.	\$4,647,000
M045 E	PBM045B	Omaha	Cox Cable Communications, Inc.	\$5,078,000
M046 A		Wichita	AT&T Wireless PCS Inc.	\$4,393,000
M046 E	PBM046B	Wichita	WirelessCo, L.P.	\$4,901,343.
M047 A		Honolulu	Western PCS Corporation	\$22,361,030
M047 E		Honolulu	PCS PRIMECO, L.P.	\$21,675,432.
M048 A		Tuisa	Southwestern Bell Mobile Systems, Inc.	\$17,562,369.
M048 E		Tulsa	WirelessCo, L.P.	\$16,801,654.
M049 A	PBM049A	Alaska	American Portable Telecommunications, Inc.	\$1,000,000.
M049 E		Alaska	GCI Communication Corp.	\$1,650,129.
M050 A		Guam-Northern Mariana Islands	Poka Lambro Telephone Cooperative, Inc.	\$107,000
M050 E	B PBM050B	Guam-Northern Mariana Islands	American Portable Telecommunications, Inc.	\$141,837.
M051 A	PBM051A	American Samoa	South Seas Satellite Communications Corporation	\$214,555.
M051 E	PBM051B	American Samoa	Communications International Corporation	\$228,001.

	Total Bids	\$7,019,403,797
	Total of Bld Withdrawal Penalties	\$14,836,213.
	Pioneer Preference Revenues	\$ 701,780,374.
Omnipoint Corporation	\$347,518,309 .	
Cox Communications, Inc.	\$251,918,526 .	
American Personal Communications, L.P.	\$102,343,539	
	Grand Total	\$7,736,020,384.

ATTACHMENT B "Ownership Exhibit A " * Direct Ownership

1	2	3	4	5	6	7	8	9
Name and Address	Relationship	Citizenship	Principal	Outside	Type of	Amount	Percentage	Held on Behalf Of
Title			Business	Interests	Interest Held	Held	Held	Name
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^{*} If applicants require additional space to respond to any Item, attach additional pages, but specify to which Exhibit and Item number those pages relate.

ATTACHMENT C

"Ownership Exhibit B"*
Indirect Ownership

OMB Approval 3060-0621 Expires 10/31/97

1	2	3	4	5	6	7	8	9	10
Name and Address	Relationship	Citizenship	Principal	Outside	Type of	Amount	Percentage	Held on Behalf	Interv.
Title	Name		Business	Interests	Interest Held	Held_	Held	Name_	Interest
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^{*}If applicants require additional space to respond to any Item, attach additional pages, but specify to which Exhibit and Item number those pages relate.

APPENDIX B Sample Electromagnetic Energy Emissions Calculations

SAFETY LEVEL CALCULATIONS

- 1. Maximum Permissible Exposure (MPE).
 - a. Determine MPE for uncontrolled environment for mobile units:

 $S = f/1500 \ (mW/cm^2) \ for 300 \ MHz \le f \le 3000 \ MHz$

where S is equivalent plane-wave free-space power density as averaged over any 30 minutes, and f is frequency transmitted in MHz.

 $S = 901/1500 = 0.601 \text{ mW/cm}^2$

b. Derive separation distance from allowed power density:

$$p_d = \frac{p_a \times g_1}{4 \times \Pi \times R^2}$$

where p_d is power density at the point of observation (equivalent to S), p_a is power supplied to the antenna, g_i is antenna gain (numeric) in a given direction relative to an isotropic antenna, and R is the distance from the power radiated by the transmitting antenna to the point of observation.

 $e.i.r.p. = p_a \times g_i$

Desire 7 watts e.r.p.:

e.i.r.p. = 1.64 x e.r.p. = 1.64 x 7 = 11.48 watts = 11,480 mW

Solve for R:

$$R = \sqrt{\frac{e \cdot i \cdot r \cdot p}{4 \times \mathbf{II} \times p_c}}$$

$$R = \sqrt{\frac{11,480mW}{4 \times \Pi \times 0.601mW/cm^2}}$$

R = 38.99 cm (15.35 in) Round to 39 cm (15.4 in).

2. Radiated Power Exclusion. 123 Use the exclusion for low-power devices in uncontrolled environments:

For 901-902 MHz mobile-to-base band:

Radiated power \leq 1.4(450/f) watts for 450 MHz \leq f \leq 1500 MHz, and radiating structure \geq 2.5 cm from the body, except the hands.

Radiated power \leq 1.4 x 450 / 902 Radiated power \leq 698 mW Round to 700 mW

Radiated power \leq 700 mW, and the radiating structure \geq 2.5 cm from the body, except the hands.

¹²³ Note that in the reactive near field of a hand-held device radiated power and not e.i.r.p. is the appropriate term to use.